

What is claimed is:

1. An output stage for a differential amplifier comprising:
first and second P-type input amplifiers to receive a non-inverted differential voltage signal and an inverted differential voltage, respectively;
first and second N-type input amplifiers to receive the non-inverted differential voltage signal and the inverted differential voltage, respectively;
a first output amplifier to receive the output of the first P-type input amplifier via an N-type load and the output of the first N-type amplifier via a P-type load; and
a second output amplifier to receive the output of the second P-type input amplifier via an N-type load and the output of the second N-type amplifier via a P-type load.

2. The output stage of claim 1 wherein an output voltage signal is to be provided between said first and second output amplifiers.

3. The output stage of claim 2 wherein said first output amplifier is a P-type amplifier and said second output amplifier is an N-type amplifier.

4. The output stage of claim 1 wherein said non-inverted differential voltage signal and said inverted differential voltage signal have matched currents.

5. An output stage for a differential amplifier comprising:
first and second P-type transistors to receive a non-inverted differential voltage and an inverted differential voltage, respectively;

4 first and second N-type transistors to receive the non-inverted differential voltage and the
5 inverted differential voltage, respectively;

6 a first output amplifier to receive the output of the first P-type transistor via an N-type
7 load and the output of the first N-type transistor via an N-type load; and

8 a second output amplifier to receive the output of the second P-type transistor via an N-
9 type load and the output of the second N-type transistor via an N-type load.

1 6. The output stage of claim 5 wherein an output voltage is to be provided between said first
2 and second output amplifiers.

1 7. The output stage of claim 6 wherein said first output amplifier is a P-type transistor and
2 said second output amplifier is an N-type transistor.

1 8. The output stage of claim 5 wherein said non-inverted differential voltage signal and said
2 inverted differential voltage signal have matched currents.

1 9. An output stage for a differential amplifier comprising:

2 first and second P-type transistors to receive a non-inverted differential voltage and an
3 inverted differential voltage, respectively;

4 first and second N-type transistors to receive the non-inverted differential voltage and the
5 inverted differential voltage, respectively;

6 first and second N-type loads coupled to said first and second P-type transistors,
7 respectively;

first and second P-type loads coupled to said first and second N-type transistors,
respectively;

first and second intermediate transistors coupled to said first P-type transistor and said
first N-type transistor;

a first output amplifier to receive the output of the first intermediary transistor and the
output of the second N-type transistor; and

a second output amplifier to receive the output of the second intermediary transistor and
the output of the second P-type transistor.

10. The output stage of claim 9 wherein an output voltage is to be provided between said first
and second output amplifiers.

11. The output stage of claim 10 wherein said first output amplifier is a P-type transistor and
said second output amplifier is an N-type transistor.

12. The output stage of claim 11 wherein said first intermediary transistor is a P-type
transistor and said second intermediary transistor is an N-type transistor.

13. The output stage of claim 9 wherein each of said transistors is a metal-oxide-
semiconductor field effect transistor.

14. The output stage of claim 7 wherein said non-inverted differential voltage signal and said
inverted differential voltage signal have matched currents.

